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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,343

08/27/2007

Peter Sajic

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08/16/2010

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER
LLP

901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

EXAMINER

SUTTON, ANDREW W

ART UNIT

PAPER NUMBER

3765

MAIL DATE

DELIVERY MODE

08/16/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,343	Applicant(s) SAJIC, PETER	
	Examiner ANDREW W. SUTTON	Art Unit 3765	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 39-71 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39-71 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Objections

Claims 42-54, 58-66, and 70-71 objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple independent claim. See MPEP § 608.01(n).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 39-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Bothwell (US 3,447,163). Bothwell teaches a helmet with an outer 12 and inner surface 13 including an array of energy absorbing shells 18 comprising a tube, where each tube

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has a sidewall connected to another tube along the length. The tube has axis extending from the outer surface towards the inner surface where the orientation of each tube is maintain when a load is applied to the outer surface.

As to claim 40, the tubes 18 have a cylindrical shape.

As to claim 41, the device is included in a helmet.

Claims 55-56 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsotsis (US 5,517,796). Tsotsis teaches a first material 3 made of aramid fiber paper that is bonded to a second material 3 made of aramid fiber paper that is attached via adhesive 2 which is polyester. Aramid fibers have a higher melting point than polyester.

As to claim 56, the materials would inherently soften if heated.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 42-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bothwell (US 3,447,163) in view of Dunn (US 5,349,893). Bothwell teaches the device substantially above. Bothwell does not teach the use of adhesives or welding to form the honeycomb. Dunn teaches the use of welding or adhesives to form a honeycomb structure. It would have been obvious to one of ordinary skill to modify the teaching of Bothwell with that of Dunn to provide a more secure honeycomb. (see col. 5 line 31)

As to claim 44, Bothwell teaches a honeycomb made of resin impregnated filled with polyurethane foam.

As to claim 45, the applicant states no criticality to the second material having a lower melting temperature than the first. It would have been obvious to one of ordinary skill in the art to provide the second material having a lower melting point than the first through routine experimentation.

As to claim 46-47, Bothwell illustrates each tube is connected to 6 other tubes.

As to claims 48-49, With respect to the limitation of a 6 mm diameter, the specification contains no disclosure of either the critical nature of the claimed diameter or any unexpected results arising therefrom, and that as such the 6 mm diameter was arbitrary and therefore obvious. Such diameter limitation cannot be a basis for patentability, since where patentability is said to be based upon diameter or another diameter or another variable in the claim, the applicant must show that the 6 mm diameter is critical. In re Woodruff, 919 F.2d 1575, 1578, 16 USPQ2d 1934 (Fed. Cir. 1990). One having ordinary skill in the art would be able to determine through routine experimentation the ideal dimension for a particular application.

As to claims 50-51, With respect to the limitation of a .1 - .3 mm thickness, the specification contains no disclosure of either the critical nature of the claimed thickness or any unexpected results arising therefrom, and that as such the .1 - .3 mm thickness was arbitrary and therefore obvious. Such thickness limitation cannot be a basis for patentability, since where patentability is said to be based upon diameter or another thickness or another variable in the claim, the applicant must show that the .1 - .3 mm

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thickness is critical. In re Woodruff, 919 F.2d 1575, 1578, 16 USPQ2d 1934 (Fed. Cir. 1990). One having ordinary skill in the art would be able to determine through routine experimentation the ideal dimension for a particular application.

As to claim 52-53, With respect to the limitation of a 30-40 mm length, the specification contains no disclosure of either the critical nature of the claimed length or any unexpected results arising therefrom, and that as such the 30-40 mm length was arbitrary and therefore obvious. Such length limitation cannot be a basis for patentability, since where patentability is said to be based upon diameter or another length or another variable in the claim, the applicant must show that the 30-40 mm length is critical. In re Woodruff, 919 F.2d 1575, 1578, 16 USPQ2d 1934 (Fed. Cir. 1990). One having ordinary skill in the art would be able to determine through routine experimentation the ideal dimension for a particular application.

As to claim 54, the cells are integral to the helmet.

Claims 57-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsotsis (US 5,517,796). Tsotsis teaches the device substantially above. Tsotsis does not teach the use of the claimed materials for the honeycomb. The applicant states no criticality to the claimed material. It would have been obvious to one of ordinary skill in the art to modify the teaching of the Tsotsis with one of the claimed thermoplastic materials are commonly used in the thermoplastic art.

As to claim 58, Tsotsis teaches the use of aramid for material 3.

As to claim 59, Tsotsis teaches the second material being an aramid fiber reinforced paper. It would have been obvious to one of ordinary skill in the art to modify

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the teaching of Tsotsis to provide a fiber reinforced plastic as fiber reinforced plastics are commonly used in the honeycomb art.

As to claim 60-61, Tsotsis teaches the adhesive 2 is polyester.

As to claim 62-63, the adhesive of Tsotsis is the same as the applicant and therefore must have the same melting properties.

As to claim 64, the claim has method limitations and provides not structural limitations.

As to claim 65, Tsotsis teaches the first material 3 also bonded to material 1 using the adhesive 2.

As to claim 66, the first material 3 is a honeycomb.

As to claim 67-71, one of ordinary skill in the art would provide the method claims from the apparatus rejection made above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW W. SUTTON whose telephone number is (571) 272-6093. The examiner can normally be reached on Monday - Thursday 7:00 am -5:00 pm and Friday 7:00 am - 11:00 am.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary L. Welch can be reached on (571) 272-4996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AWS
8/11/10

/Shaun R Hurley/
Primary Examiner, Art Unit 3765